Here are some things that have been overlooked recently in the Lab:

1. If you are using more than one power supply, you must remember to connect the two grounds together. If you fail to do this, the voltage on signals shared between the two circuits can be very large (easily enough to blow a Xilinx or a RoboCam).

2. If you are probing the SCL or SDA pins on the RoboCam board, you must be aware that the power pin (9-15v) is adjacent to both these pins. If you are not very careful, the logic probe tip can easily short either of these signals to the power pin which could result in a blown Xilinx or RoboCam.

3. When wiring up a new circuit you should always double and triple check your wiring before you apply power. It also helps to have someone else look it over as well (your lab partner works well). If you don’t understand something, don’t just guess and hope it will work. Find someone who can help, so you don’t end up damaging your circuitry. An even better solution when wiring up a new circuit, is to power up without any chips the first time. You can then use a volt meter to check your power and ground connections at each chip socket.

5. Some of you may have encountered configuration problems recently. The likely cause is if you are using a dongle to cut at least parallel port data pins D6 and D7. These two pins are used during configuration to select the mode of the Xilinx chip. If you are connecting your own inputs on these to pins, they can cause the wrong configuration mode to be selected. One solution is to not use these to pins D6 and D7. Another solution is to run your inputs through a tristate buffer chip that is enabled with the configuration pin (55). You would connect the enable so that your input is driven to the Xilinx only when configuration is not happening.